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Connecting People: An Exploration of Building an Intranet through Autoethnography

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(TITLE)

BY

Christopher J. Martinez

THESIS

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Connecting People: An Exploration of Building an Intranet through Autoethnography.

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Abstract

This study examines the development and failure of an Intranet at a small company in Southern Illinois. Using autoethnographic methods, I analyzed the events surrounding the development and rejection of the Intranet by the organization's president. Using Burke's concepts of identification and mystery, I analyzed the relationship between the failure of the Intranet and the president's reasoning for not supporting its development. Throughout this study I evaluate the Intranet's development, the impact of other's involvement, as well as the impact that the design of the layout could have on communication at the Company. I find that the failure to develop identification with others in a cooperative development environment could lead to failure of projects.

Connecting People: Exploration of

Building an Intranet through Autoethnography

The heart of design is communication: defining a problem and creating a solution that balances pure information with an aesthetic that gives the message voice.

- Veen (2002)

According to Veen (2002), communication is at the heart of design. In this paper, I argue that communication is at the heart of getting projects accepted or rejected by managers. Specifically, in this project, the analysis is concerned with the failure of an intranet project at a small company in Southern Illinois.

Kenneth Burke (1969) focused on how language is used to persuade people to act. Burke proposed that persuasion is "the use of language and symbolic means of inducing cooperation in begins that by nature respond to symbols" (p. 43). This cooperation is created by what Burke calls "identification" (p 43). This analysis uses Burke's concept of identification in order to discuss the resistance and ultimate rejection of the company's intranet.

My initial interest in developing an Intranet arose in the fall of 1998, when I began my career as a programmer analyst at the company in Southern Illinois. With previous experience in web design and development, I was hired to assist in developing the company web presence, as well as working on any client projects that required a web site. I should note that I had limited experience in web "development": using any programming languages for the web such as C++, PERL, Java, and finally Active Server Pages (ASP). Through research, readings, and browsing Internet sites I had limited exposure to these languages. I knew they existed, knew remotely of their capabilities; but I wasn't a computer programmer: I was a student of Speech Communication. I did have experience with HTML, JavaScript, and "canned" CGI scripts: fill-in-the-blank scripts written by experts for novices and amateurs. I considered myself very knowledgeable in the basic areas of web page development, but by no means did I consider myself a computer programmer. So when my manager nonchalantly asked me if I knew ASP, I honestly answered that "Yes, I know of it, but don't know it." I knew then that I had to head to the local Barnes and Noble and find any book on ASP. For my manager to inquire about my knowledge of ASP, I knew that knowledge of ASP was required for an upcoming project, and that my career was dependent upon how quickly I could learn it.

In the course of learning ASP, I read every article that I could obtain; I visited every site that was remotely connected to ASP; I visited Barnes and Noble countless times going over book after book on the topic. I was a man possessed. My only goal was to learn quickly and learn everything I could. I learned about programming fundamentals using VB Script (the common scripting language in which ASP is written). I learned about object-oriented programming and the basics of ASP. I also learned about database connectivity. In short, the learning process that I experienced was unexpectedly easy. It all came so easy to me. I was surprised at the rate at which I was consuming the knowledge available to me. I credited my ability to rapidly learn to my desperation to learn how to program web sites and the desire to impress my fellow employees. Of course I made mistakes, some that were actually quite costly in terms of time, but I learned from those and moved past them--chalking the mistakes up to experience. But I needed a project that I could work on that would allow me to flex my knowledge and prove my capabilities, something that I could solely call my own. I chose the company Intranet as my guinea pig.

My decision to build the Company Intranet coincided with my search for a suitable thesis topic, and my decision to develop the Intranet motivated me toward this topic. Initially, I had planned upon developing twin sites: one for the intranet and the other for my thesis. I had hoped that the thesis site would provide a quantitative analysis of how others made use of their intranet and based upon these findings guide me in building my own intranet. This was to be accomplished through a comparison of perceptions and expectations of groups that are affected by Intranet usage. My theory was that each group within an organization had its own expectations of what an Intranet should or should not be. I sought the assistance of several acquaintances that were employed at large companies that used an Intranet to aid in providing a large enough study-group; the company was a poor choice due to the number of employees and the lack of an Intranet. However, due to time constraints, lack of security for data, and politics at several locations, my initial project to do a quantitative study fell through.

In August 1999 I met with the president, vice president, and my manager to discuss the Intranet and the impact it would have on the corporate environment. The result of this meeting was that the Intranet would not be supported by the administration until certain questions were answered, in effect sending the Intranet into limbo until the politics and uncertainty surrounding the Intranet could be determined. To date the Intranet remains unused. I attended this meeting, accompanied by my manager, with the understanding that this meeting was the one chance the Intranet had to gain approval and continue to develop and grow; as the saying goes "You only have one chance to make a first impression." When the Intranet failed I realized that I could learn from my experience with developing the corporate Intranet. In this paper, I examine the process of developing a corporate Intranet and the events leading to its failure utilizing Kenneth Burke's (1969) concept of "identification."

Research Questions

An important question springs from the previous discussion and serves as the central research question for this paper: What was the reason for the failure of the Intranet project at the company? In connection with this primary question, a subsidiary question explored in this essay is: To what extent does identification explain the process of decision-making and ultimate failure of the Intranet at the company?

Methodology: Explanation of Auto-ethnography

Ethnography refers to a method of research where the researcher participates in people's lives for a period of time; however, ethnography is more than just observation. According to Conquergood (1991), "ethnography's distinctive research method, participant observation fieldwork, privileges the body as a site of knowing" (p. 180). In other words, ethnography is an embodied process where the researcher watches, listens, and participates in a culture in an attempt to gain some understanding of the culture's way of life.

Autoethnography is similar to ethnography, but goes further than description and analysis of particular phenomena. Autoethnography attempts to gain understanding of the researcher's own "lived experience" (Bochner & Ellis, 1995; see also Bochner & Ellis 2002; Trujillo, 1998). Ellis (1997) proposes that our understanding of others can only proceed from our own experience. Therefore, where traditional ethnography attempts to understand a particular culture through participant-observation, autoethnography treats the researcher as the text (Trujillo, 1998).

This essay uses my own lived experience as a text in order to gain a better understanding into the failure of the Intranet at the company. Using meeting notes, e-mail correspondence, and personal reflections upon the events surrounding the development process, I hope to gain further insight to how the Intranet development process contributed to my career development, and the unification of a department as a team. Additionally, I use site code (both HTML, but specifically ASP) as my field notes. According to Goodall (2000, p. 84) a basis for fieldnotes includes a combination of personal reflection and notes to create the story; as a web developer I use code to create the story (the web page or complete site). Reviewing site code also aids in personal reflection by showing the reasoning for taking certain actions in the site: why a site functions the way it does. Throughout the paper I also provide answers to the questions that were presented during the August 1999 meeting, allowing the reader to gain further insight into the events that surrounded the development process for the company Intranet.

Field Notes and Analysis

The existing company Intranet was, in all honesty, non-existent. Sure the site was available and viewable by employees, but it provided no real functionality to the company. A loose gathering of briefly informative pages compiled together by one of the computer programmers, the Intranet failed to provide service, and thus warrant its existence, to the company. Based upon my new knowledge of ASP, I saw the potential in my version of the company Intranet and the impact it could have upon our daily routines as employees. My design would prove to be the ultimate tool for the communication in our Company, or so I hoped.

Before I continue on, I feel it only fair that I provide some background for you on the company. The company is located in a small college-town with a small population that doubles or triples when students are in town during the fall and spring semesters. Driving south through the main road that divides the town past the small shops and strip malls, past the university and its property, I reach an intersection that is forested on the southwest corner, although a sign indicates that it is designated for the development of Hucks gas station. Continuing past the small grocer on the left, the best place in town to buy local produce; accelerating to gain momentum up the winding turn to reach the destination of the company. Located on the left hand side of the road and indicated by a large white sign that is lit during the evening hours, at first the company appears to be a home. In actuality, an orphanage occupied the building in previous years, and employees swear that the office is still occupied by some of the orphans who have decided to stay as part of this world. Two small gravestones on the property mark the resting place for two pets: a bird and a dog. The building is a large two-story house; red brick encases a large bay window that stretches across the first floor on the front of the building, which happens to be the president's office. White siding stretches from the front of the building to the glass-encased side entrance where a sign is posted indicating in small letters that this is the main entrance for all visitors. Driving past the first building on the recently finished black top, an opening appears separating the two buildings that make up the company. This opening contains a recently erected gazebo, intended to provide smokers at the company shade during the summer. The second building, a recent addition, is composed of two mobile trailers connected to form one large facility. Complete with separate heating and air conditioner units, the "Trailer" contains two offices for management personnel, cubicles for researchers, a receptionist's office, and a large training room that doubles as the company conference room.

As I enter the main office building, I have a choice of going up a set of stairs or down to the basement. The first floor, going up the stairs, also contains offices for more researchers, as well as a large reception area connected to a narrow kitchen, where employees can heat their lunches in the provided microwave. Also located on this floor are the president's office, two administrative offices, and a small conference room adjacent to the president's office. Next to the president's office is a small, dimly lit waiting area for guests. The waiting area features two standard office chairs, much like those that one would find in a dentist's office waiting area, and shelves of pictures of employees attending company picnics, office parties, or at work. The idea is to promote the company as a family; we work together and we play together. A second narrow set of stairs, found in the waiting area and across from the doorway to the small conference room, lead upstairs to the second floor where the vice president's office is located. The vice president's office is situated directly above the president's office; both face the front of the building. Sitting in this office, I notice the remnants of the orphanage. Facing the vice president's desk, it is difficult to not notice the closet located behind her, filled with a file cabinet and files, and not imagine that this was probably a bedroom, perhaps of an administrator or someone with authority over the children because of where the office is located. Adjacent to this office is the office of the company accountant, which is completely strewn with pile of papers, files, and books making only sense to the accountant and making me wonder how bills ever get paid and if any are ever lost or misplaced.

A doorway in the waiting area opens to a flight of stairs that goes down to the basement. Entering the basement through these stairs one can view a restroom, an ancient refrigerator for employee's use, a Coke vending machine, and a server room. The uniqueness of this area is that the floor is raised, leaving a few inches between the vending machine and the ceiling, and makes me wonder how the heck did they get this thing in here? And if it breaks how the heck are they going to get it out? The server room is the nerve center for both buildings: this room contains all necessary file servers, routers, and the primary connection to the Internet and e-mail is located in this room. It is a small room that is cooled by a windowed air conditioner that is always set to a moderate temperature for the computers.

Leaving this area, and going down the three stairs from the raised floor, there is a short hallway that leads to the main area of the basement. I work here: in the cubicles and in the home of the troglodytes, as we refer to ourselves. There are two main offices in the basement also, one for my boss and another for a senior programmer. There are eleven gray cubicles with five down one wall and six down the other with a main walkway going down the middle. Half walls separate the cubes from the walkway, allowing anyone to peer over and view the contents of the desk or what is on the monitor. Located in the back of the room, down the end of the wall with five cubes, is a printer/test area for the developers and an exit door that leads outside to the gazebo smoking area. There are three computers that are mainly used for testing software installations, software compatibilities, and a printer that is networked for everyone's use. We call ourselves the troglodytes for the obvious reason that we work in the cave. So it's a basement, but it feels like a cave due to the lack of sunlight. While there are many windows going up and down the walls, we mostly tend to keep the blinds shut since the sunlight tends to reflect off our monitors making it difficult to work due to the extreme glare.

The layout of the company office hinders communication between management and the developers. The location of the president's office, in the front of the building, places the president in an unapproachable position. Would he be any more accessible if his office were located elsewhere in the building? I think not, it is the combination of his position and the location of his office that makes others think of him as inaccessible. On the other hand, the location of the developer's cubicles in the basement limits the amount of interaction between developers and management. The layout of the developer's cubicles with the manager's office located at the front of cubicles, and at the bottom of the stairs, acts as a buffer between the developer's area and the first floor where management is located. This layout reflects the hierarchical organizational structure of the company: the president is located at the top; the 2nd tier consists of managers that report to the president; the 3rd tier consists of the developers and/or researchers that report to their respective manager.

Joining the team

When I first joined the company I felt as if I was an outsider. I was not part of the team yet. I had been assigned to work with a team, but that is not the same as being part of the team. Burke (1969) states, "A is not identical with his colleague B. But insofar as their interests are joined, A is identified with B" (p. 20). Cheney (1983b) states, "Identification-with an organization or anything else-is an active process by which individuals link themselves to elements in the social scene" (p. 342). In other words, people are not likely to automatically identify with an organization or their colleagues. Instead, people can become members of a group that they identify with over time through the socialization process. By the time I began working on the Intranet, I considered myself as part of the group. I had begun to understand the inside jokes and had begun to communicate with other members on a more personal level. We had found common interests both within the professional arena and outside of the work environment. For example, often time during the summer we would gather at a local beer garden to vent about work and to enjoy each others company. Many times during these outings we would talk about work, and discuss the projects that we were working on at the time. Many of my colleagues were also interested in web development and had developed some sites of their own. This interest in web development allowed me to identify with my colleagues because they would seek my advice regarding web development and thus enforce identification on both professional and *social levels. I had more of a professional interest in web development as this was my career and the other programmers, who were not involved in web development, had more of a social interest in web development as more of a personal hobby. Additionally, it was their interest in web development and in developing an Intranet that allowed us to unify together and support the Intranet as I worked on it in the basement. I recall different occasions where I sought the advice of my colleagues on programming and design of the Intranet.*

I began working on the company intranet in May of 1999. I had been working on a large project for the previous five months, but the project was in limbo at this time, and I was in need of something to occupy my time. The majority of the work that we do at the company is government related, and at this time the project I was working on was going into the summer lull that accompanies government related projects. The work still had to be completed, but the deadlines were less stressful. I found that the majority of my tasks were completed and did not require my full attention. At the end of each month we are required to submit our timesheets for accounting purposes. These timesheets are designed to track the amount of time that we spend on individual projects as well as the use of our general time. The time that cannot be attributed to a project must be tracked. It is acceptable to use our general time to perform research and/or training that would benefit the company and us. The use of general time is not encouraged because billable time is how the company makes money. However, using general time in a manner that would benefit the company is not frowned upon because it is a more effective use of time compared to say sitting around surfing the Internet. I don't think it would be fair to say that the company does not support non-sanctioned projects; however, general projects that are supported by management are assigned a separate tracking number. The accounting mentality that surrounds the company time management bears little or no impact on the creative thinking that is involved with web development. However, the criteria set forth when in a project requirements document has an extreme impact on the creative direction I may take when developing a site. These requirements are often dictated by my clients and although it is my duty to guide a client in the right direction there are times when his/her mind is set on one creative (I use the term loosely here) direction which they want to see implemented in their site. Bearing in mind the adage that the customer is always right, I often find that I have to restrain my own creativity to meet the clients' expectations.

As I stated earlier, I found that the Intranet allowed me the ability to exercise my programming skills, but it also allowed me the freedom to create the Intranet without any of the constraints associated with developing a site for a specific client. I had free reign over content and display, an opportunity that I often did not have since most projects were designed to meet client expectations. I used all the resources available to me including both software and time, devoting any free time to developing the Intranet. As I entered into the development process, I realized I had only a vague idea of what an Intranet is.

Defining the Intranet

If I had a vague idea of what an intranet was, I should now consider what the president thought an intranet was. The previous attempt at the company intranet was poorly designed and was also poorly presented to the administration. It is possible then that the president may have associated my version of an Intranet with the previous version but still did not have a complete understanding of what an intranet is or the potential it had to offer to our company.

The Intranet, as we know it today, has been in development for some time. The use of networks to share data between organizations can be dated to the mid 1960's when Advanced Research Project Agency, ARPA, connected two remote computers to transfer data (Segaller, 1998). However, the development of a modern LAN (Local Area Network) evolved in 1979 (Kennedy, 1997). The corporate LAN is significant in that multiple users can be connected together to share information and data. Thus, the LAN can be used as an Intranet, albeit at this point we have not reached what this paper refers to as an Intranet. For example, a LAN administrator can allow users to access individual folders and files on a "public" network, where public is defined by the members of the organization. However, to access such folders and file, users must search through folder upon folder before locating the needed file. The evolution of the LAN toward a modern Intranet was dependent upon the development of the transmission control protocol / Internet protocol, TCP / IP. This development, coupled with the release of the World Wide Web by CERN in 1991 and the introduction of the Mosaic browser in 1993

(Segaller, 1997), provided the base for the explosive growth and use of Intranets. Semeria (1999) summarizes this marriage of technologies best:

> Intranet deployment requires an existing network that supports the TCP/IP protocol suite and related Internet applications. TCP/IP provides the fundamental set of communication protocols that permit basic connectivity between networks and individual desktop systems. Internet applications (electronic mail, Web browsing, file transfer, terminal emulations, etc.) provide the tools and services that allow workers to share information across one or more local area networks (LANs), a wide area network (WAN), or the Intranet.

Telleen (1998) defined an Intranet as "An infrastructure based on Internet standards and technologies that supports sharing of content within a limited and well-defined group" (p. 1). In examining this definition we realize that an Intranet is rooted in Internet technologies to allow communication within a defined organization. However, according to Telleen (1998) the term "infrastructure" referred to the "organizational and management infrastructure that created, managed, and shared the content" (p.1). He later changed the definition of an Intranet "as a set of content shared by a well-defined group within a single organization" (p.1).

Armed with the definition of an Intranet and the knowledge of what compromises an Intranet, I continued the development process. Goto (2002) outlines the development process as defining the project, developing site structure, visual designing, production, and launch. First, I began by defining my project. I examined what the company Intranet would require. I needed to consider our business practices and determine what would be best suited for an Intranet environment. I concluded that our Intranet would primarily act as a clearing-house for information, relieving the staff of tedious tasks that could be provided through the Intranet. These tasks included providing a contact list, posting a calendar of events, requesting conference rooms, requesting administrative support, and gathering style templates, arranging travel information, checking out software from our compact disc (CD) library, and finally requesting technical support. The majority of the tasks were chosen because they seemed well-suited for Intranet application. For example, the ability to request administrative support was chosen because by creating this task in electronic form, I hoped that the paper counter-part would be replaced.

A crucial part of defining the project was to determine the audience for the site. In regards to the Intranet, I considered my audience to be three-fold: developers, administrators, and other company employees. I chose to classify each group, rather than use the entire company as a whole, because I wanted to distinguish how each group would use the Intranet.

The Audience(s)

Could it be that the president didn't identify with my definition of an Intranet as I presented it? I stated that I needed to consider the company's business practices and incorporate them into the definition of my project. However, I recognize now that as an employee with less than a year of employment my understanding of the company's business practices may have been a little naïve, and thus my definition of the company Intranet *project was probably misguided. By integrating the audience into helping me define the project (forming the project to meet their needs and goals) I would have had a better understanding of the existing company's business practices. But at this point I failed to consider the audience as a necessary part of the development process as an oversight on my part. I should also note that even though I identified three groups as my audience, I should have identified only one audience group, and only one audience member: the president. I realized that I should have included the president as the audience during the writing of this paper. Of course this realization came too late to properly address it leaving me feeling obtuse for not recognizing this sooner while I was in the process of developing the Intranet.*

Differing groups exist within organizations, especially corporations where management must exist separate from the employees. In "Report from the Trenches," Desborough (2000) reports that two groups existed within organizations developing Intranets. There were the "techies"- those that developed the Intranet from a technical perspective; and the "communicators"- those that developed the Intranet from a content perspective. Each group, viewing the Intranet from their own perspective, failed to see the other point of view. Desborough found that a lack of, or poor, communication was the source for the Intranet failure. The groups that Desborough identified can also include other groups within the organization for this paper. These two groups can in fact combine to form one single unit: developers. A second group within any organization that has a profound impact on an Intranet is management. A third group is senior management, which is related to management, but in this case can be identified as a separate entity and as one person: the company president. Finally, a fourth group exists that uses a corporate Intranet: end-users. Members of these groups may overlap into the other groups. For example, a member of the development team can also be a member of management. While both members of management and developers can exist as end-users, these members should be limited to their initial group. Although three distinct groups are identified, they all belong to one single entity: the corporate organization.

I felt that the developers would primarily use the Intranet to access the CD Library. The company subscribes to the Microsoft Developer Network Library, MSDN. Each month MSDN subscribers receive development CDs, beta versions (pre-public release) of software, as well as additional information significant to developers. Each month the company technical support entered the CD information into a spreadsheet and checked the CD into the server room, placing the CDs into binders that were categorized by month. If a developer required a specific CD, he/she requested that CD from technical support. Oftentimes the CD was already being in use by another developer, especially if the CD was very popular or contained crucial software for development, but there was no indication of who had the CD in question. In order to resolve this situation, the developing Intranet was being designed to provide a "check-out" system for developers. The MSDN check out system offered developers several unique features. Among them was the ability to search for a CD by title, the ability to identify if the CD was available for check out, and finally the ability to checkout a specific CD.

Administrators encompassed both the administrative staff, including upper management, and site administrators. I defined site administrators as anyone with the ability to update the database and thus the Intranet. I should mention at this time, that not everyone would have this ability. The Intranet administrative section of the site would only be accessible through authentication using usernames and passwords, addressing security would later prove to be a large factor for the Intranet. The administrative staff was going to be allowed to perform certain tasks, but they were not responsible for the entire contents of the database and the site. Site administrators could include representatives of other departments within the company's infrastructure with the responsibility of representing their department by maintaining relevant department information for the Intranet. For example, a representative of human resources would be responsible for maintaining the employee contact list, while a representative of the technical support staff would care for the FAQ (Frequently Asked Questions) sheet on software questions that employees might have.

Senior management at the company consisted of five program managers, a secretary, a treasurer, and a vice-president, and a president. For the purposes of this paper, however, senior management is composed of the company president. This is because of the fact that only my manager, one of the five program managers, and the vice president were aware of my work in developing the Intranet and thus were part of the both the developers group and the management group. The remaining members of senior management, with the exception of the president, would belong to the end-users group. The president, as dictated by his position, would have final approval on the development of the Intranet and therefore qualified as a unique audience.

The Audience: (re)visited

Why is it that we, as employees, place the company president on a pedestal? Burke's idea of mystery stems from the differences we place between people in two "social distinctions" (Burke, 1969, p. 115). That is, the difference between two groups, in this case employee and management, acts as an obstacle in the journey toward understanding the other group. So the answer to the question then is that we employees do not belong to the senior management group, and since in this case the group allows for only one member, we can't belong to the group and can't completely identify with the group. Burke proposes, "identification is offered with earnestness precisely because there is a division. Identification is compensatory to division" (p. 22). In other words, identification is necessary to compensate for mystery. Regardless of mystery, there is an established identification that exists within the company, an attempt at unifying the organization and breaking the class barrier that exists among the members. According to Cheney (1983a) organizations often help with facilitating identification through various means of communication (p. 146). An example of the company's facilitation of identification is when a new employee reaches his six-month anniversary he/she is awarded with both a company jacket and a company shirt. The jacket and shirt are both in the company colors and symbolize the acceptance of the new employee into the organization

I believe that my role as the primary programmer in developing the Intranet inhibited my ability to see others' perspectives of the Intranet. I stated earlier that it was difficult to identify with the president, this difficulty also contributed to obstructing my viewpoint of the other potential opportunities that the Intranet offered. Where I saw the Intranet as a method of communication for the company, the President may have seen the Intranet as a potential breakdown in employee interaction, as he indicated during our meeting and on the notes he provided afterwards. I saw the Intranet as an efficient means to reduce time-consuming activities and to promote communication via discussion forums. I failed to comprehend how this would impact the human interaction that these activities would replace. By reducing the human interaction that was related to these activities, I would inadvertently impact the identification that existed amongst the company employees. The differences in these opinions may be accounted for by our differing backgrounds in technology and management.

Finally, the last group is other company employees or the end-users. End-users can be defined as anyone that did not directly contribute to the development of the Intranet, including developers and members of the administrative staff. End-users are ultimately the audience that the Intranet is intended to benefit. The success of the Intranet, or any web site, is dependent upon the acceptance of the end-users.

Belonging

I mainly thought of myself as part of the developers group for two main reasons. First, I belonged to the Technology Department of the company. Second, I was the person developing the company Intranet. I was hired as a programmer analyst for the company and was a web developer for the company: by definition I was part of this group. I would have also considered myself as part of the administrators group since I would have access to updating the site but I would not be making changes to the Intranet without someone else's approval.

The processes of developing site structure and visual designing are two unique entities. Developing site structure refers to organizing content and information to allow users access to data in an efficient manner. Visual design refers to the development of the front-end of the site that the user will encounter. To many users the front-end of a web site is the site itself; most users do not consider the programming and back-end (such as databases, storage, commerce, and other applications that allow the site to function) that make up a web site. While these processes are unique, due to time constraints and the fact that I was the only person working on this project, I chose to treat them as one single process. This allowed me the freedom to move the focus of my work between the two. For example, if the content that I gathered didn't flow with the interface that I designed it was easy to change either one or the other.

The developing site structure phase includes outlining what content, including text and graphics, will be present on the site. As a developer, I knew that a database would be required to store the information that I gathered. I chose to use a Microsoft Access 97 database, and later a Microsoft Access 2000 database, for two reasons. First, I was already familiar with Access and had experience with ASP to post Access data onto Internet pages. Second, Access was free to use, if you own Microsoft Office. If we had chosen a high-end database, such as Microsoft SQL Server or an Oracle database, we would have to pay licensing fees. I knew that we could not afford to pay the fees, and I did not have experience with either database. The database was designed to store the majority of information for the site, including: (a) a counter, to track usage of the site; (b) forum and messages, to provide a discussion forum for the site; (c) employee contact information, including user names and passwords; (d) announcements and events calendar, general announcements to be displayed on the site home page and within a monthly calendar; and (e) the MSDN Library, which allows developers to search for a specific MSDN disc and check for availability.

In addition to deciding what content should be stored within the database, I also had to decide what content should be available on individual pages and how to organize the information to make it accessible for the end-users. I opted for dividing the site into four distinct sections. The first section, Services, was designed to provide access to general information that would be required more often than other aspects of the site by a majority of users. For example, although I knew that the developers would use the MSDN search more than any other service of the site there weren't enough developers to warrant offering this capability for the rest of the company. Therefore, Services offered items such as the employee contact list, the calendar of events, request forms, and access to the style templates. The request forms, both one for travel requests and one for facility reservations, were designed to alleviate the administrative staff of the tedious tasks of processing paper work and handling phone calls for minute details related to each of these tasks. For example, the current business practice of requesting administrative support was outdated. Administrative support includes copying, sending out packages, and proof reading papers. In order to request administrative support a form had to be completed outlining the requested tasks. In my opinion, this was a waste of time, especially for employees in the other building since the forms were only located in the main office. By integrating this process as part of the Intranet the forms could be completed electronically and save time and money for the whole process. The aspect of document management over the Intranet opened was a primary source of discussion during our August meeting.

Regarding the visual layout for the site, I opted for a simple layout that could easily be adjusted as the Intranet grew. The main focus was the navigation system located at the top of each page. The navigation system was composed of a JAVA Applet that was purchased with the intent of using it for a client site. A colleague pressured my manager into purchasing the applet for the client's site. However, the licensing dictated that the applet could only be used on the web server at the company; it was imbedded into the applet code to ensure that this requirement was met. So the applet could not work for the client since we would not be hosting the site. I chose to use this applet in order to justify the purchase. The color combination for the applet and the site reflected the company colors. The outcome for the visual design was not glamorous, but it was functional and served the intended purpose.

Belonging: (re)visited

I previously stated that I chose the navigation applet to justify the purchase. However, after reviewing the actions that I took in developing the Intranet I feel that I had other reasons for using the applet. Looking through the code and walking through the site I asked myself why I had used the selected applet. I realized that I didn't think much of the applet because it seemed to be more trouble than it was worth. So why would I use something that I didn't like in the first place? The answer as told above is that I used the applet to justify its purchase. Looking back at this I feel that I may have cornered myself into using the applet, thus letting go of the control that I had over the development process. I didn't have to use it but I chose to because it provided a benefit to the organization, specifically to my coworker. As a newcomer to the company, I feel that by providing a reason for us to use the applet, I was not only justifying the purchase, but also justifying myself as a valid member of the team. Through this action I might have been able to allow the others, my manager perhaps, to identify with me as a qualified programmer who looked out for other members of the team.

Production on the Intranet began in May 1999 and was completed by that August. The process was interrupted periodically by performing actual work, i.e. clients are paying for projects to be completed. It is important to understand that the entire development of the Intranet was performed primarily during off-business hours and thus on my own time. Working after hours and especially using my own time, either in the evenings or during the week-ends, was somewhat of an eye-opener to me at first. According to Conrad and Poole (1998) "culture shock [occurs when] the sudden realization that what was taken for granted in their previous organization is not the same as what is taken for granted in their new one" (p. 200). My previous employer did not expect me to work late or on the weekends and neither did the company. However, it was quite common for my fellow colleagues to stay and work into the evening and I felt that if I wanted to fit in, especially since I wanted to advance with the company that I should do the same as well. There were periods of down time that allowed me to work on the Intranet at work and with the support of my colleagues. The entire Intranet production was simplified by the use of specific tools designed to work with Active Server Pages (ASP) in the Microsoft environment, namely Microsoft Visual Interdev 6. Using Interdev, I was able to minimize production time for the Intranet development process. The majority of the site code was written using VBScript (Visual Basic Script – a scripting language based on the Visual Basic programming language) for ASP and was intended to connect to the Access database. Additional tools and languages included: Microsoft FrontPage, HTML, JavaScript, JAVA, and Adobe Photoshop.

As the development continued throughout the summer, more and more of the development of the Intranet began to appear at work. During the normal process of developing a site, I usually run into an area where I might question my colleagues to seek support. The Intranet production process was no different, and my colleagues began to notice the project I was working on. The majority of them joined in by offering ideas about content, visual design, and of course programming tips that I did not yet have the experience to identify. Conrad and Poole (1998) suggest that "by acting and communicating in [an] appropriate and predictable ways "(p. 116) I was making my fellow colleagues feel more at ease with me as a newcomer. Furthermore, Conrad and Poole identify the encountering stage as one of the stages in which a newcomer enters into an organization (see p. 205). During this stage, by communicating with my peers I was also being guided by my colleagues into the role that was expected of me by the company. For example, by providing suggestions they helped me to understand what was acceptable for the Intranet design. This guidance made me feel as if they were starting to accept me as one of the members of the group. By mid-August, the entire department was aware of the project and the outcome it could have if implemented. A meeting was set to discuss the project amongst the programmers.

Dealing with Criticism

By inviting more people to contribute to the development process, I felt like I was opening myself up for criticism. I welcomed the constructive criticism that was offered by my colleagues because I respected their opinions, especially those regarding programming the site. Although there were occasions where I felt like I was losing control of my project, I was able to incorporate the suggestions of my colleagues into the site and still remain in charge of the project as a whole. I didn't mind my colleagues input, but it was my pet project, and I felt possessive of it. I believe that by allowing my colleagues to become involved in the development process I was able to expand on my original ideas for what I wanted the Intranet to become: they took my thoughts one step further.

Attendees were invited via e-mail and requests were made to view the Intranet prior to the meeting. The meeting was held late on a Friday afternoon in the large conference room of the trailer. The entire department was in attendance including my manager and the company vice-president. The Intranet was available for viewing using the company projector. I began by introducing the purpose of the meeting and the purpose of the Intranet. Walking the developers through the Intranet screen-by-screen, attendees were asked to refrain from questions until the end. Prior to the presentation, I asked a fellow employee to take meeting notes for future reference. I noticed that during the presentation, the majority of developers were busy writing down comments in their daily planners. As I finished the presentation the questions and comments began. The question and answer session lasted for approximately 1½ hours and gave me nine pages of meeting notes to pour over. The majority of the comments were focused not on the MSDN search as I suspected earlier, but on the components that benefited the company as a whole. For example, while everyone approved of the calendar they also wondered how the calendar can be written to accommodate other employees by offering different calendar views: (a) daily, (b) weekly, (c) and monthly. Focus was also placed on the administration access to the Intranet. Primarily intended to allow access to update the database, the programmers also felt that the administration access should also be used to restrict access to other portions of the site. For example, it was pointed out by the vice president that the MSDN Library search should be restricted to only allow the programmers access. The meeting seemed to result in a unified department supporting the Intranet. I felt this way because the programmers expressed their support for the Intranet and seemed to expect the same from the administration: the company president. The programmers were all highly supportive of the Intranet and were all expecting the same from the administration: the company president. The vice-president, who had attended this meeting, was also very supportive of the Intranet and impressed by its potential capabilities.

Common Ground

This meeting was an excellent way to further enhance the team environment that had developed amongst the developers. We were united in our support for the Intranet and had joined together to aid in its development. Burke (1969) states, "in being identified with B, A is 'substantially one' with a person other than himself" (p. 21). Through our common support we were able to unite together as one team. According to Burke identification is achieved through the sharing of substances: our self-concepts including the physical, philosophical, and experiential (Larson, 2001, p. 92). In this case, the experiential (work and the development of the Intranet) was the common substance by which we banded together. Additionally, the Vice President found common ground, or substances, with us, the developers, through her support of the Intranet. Various studies (see Cheney, 1983a & b; Myers & Kassing 1998; Roach, 1998) have found that identification with colleagues and a corporation significantly contributes to influence within the organization. Therefore, I felt confident that this project would succeed because the level of identification was high at this meeting.

Following this meeting I feel that I may have been more accepted by my colleagues for my initiative in developing the Intranet. Not that I was not accepted before, but rather that the feeling of unity among our group, in my opinion, seemed to be higher at that moment. Additionally, I felt I had the support of not only my colleagues, but of the Vice-President as well. To me this meant that the Intranet was going to be readily accepted and implemented at the company. I felt very confident about my career in web development because I was responsible for building the company Intranet. My little project was becoming not only a reality, but a successful reality at that. I think that I was also a little proud of myself for my ability to learn so much and implement it in short period of time.

A second meeting was set for the following week with the president, the vice-president, my manager, and me to review the Intranet. I remember being very nervous that morning as I set up the projector in the small conference room located outside of the president's office. I couldn't be certain why I was nervous. As I look back, I don't the extent to my nervousness, but it has escalated in my memory of this time due to the stress associated with the project and the meeting. I think it is important to stress the fact that we (my manager, myself, and my teammates) felt that we really had one chance at gaining the president's approval. We felt this way because the company was not being paid for our work with external funding, and internal funded projects were frowned upon. We knew we had to impress him. Also, we knew that time was running out on us, recall that I built the Intranet during the lull period of summer – soon summer would be over and we would have "real" work coming in that would require our attention. The meeting was scheduled to begin at ten in the morning; it lasted 45 minutes. The meeting began by my manager introducing me to the president (we had already met on several occasions – the introduction was a formality) and the project that I had been working on. I should note here that although I viewed the introduction as a formality, I think it's perhaps because I've accepted it as part of the organizational culture at the company. After speaking with others about this practice they found it odd that I had been reintroduced to someone who I see on a daily basis. I think perhaps that the practice may have military origins although I can not attest to this myself having never been in the military. Still, looking back I find nothing odd about being introduced when making a formal presentation and view it not as a distancing strategy, but as a matter of etiquette. I continued by walking him through the Intranet and presenting the concept of the Intranet at the company. Throughout the meeting he asked questions and made comments while writing his thoughts on a piece of paper. I noticed that the pen he was using was a red felt-tip pen: red ink. Maybe it was seeing that he was using red ink or just the fact that it was beginning to grow very warm in the room, but again I felt extremely nervous and uncomfortable being in such a small room. I remember silently praying for the meeting to end. While he did not attack the Intranet in any way, he did not seem to fully support it. I continued to argue for the technological benefits the Intranet had to offer; he was concerned about the negative impacts that the Intranet would have on people. For example, he maintained that by moving certain business processes to automated formats we would have a negative impact on the personal contact associated with these tasks and thus impact the relationship-building opportunity that they have to offer. He was also concerned with efficiency, he envisioned that people would be checking the Intranet so often for information that their browsing would have a negative influence on their daily tasks and thus decrease production.

In all honesty, I couldn't argue with him on either point. They were both valid points. But I could argue that if the only excuse to talk with another person in the company is based upon requesting support or related to a task, how beneficial could the relationship be to either person? Additionally it is true that if people were going to consistently surf the Intranet for information production would decrease, but at that time there was nothing implemented to stop a person from surfing the Internet whenever they wished. It was up to the individual and their own work ethic to refrain from practicing leisure activities at work.

At the base of his disagreement was the impact that the use of the Intranet would have on interpersonal communication within the organization. He didn't see the Intranet as a useful tool of communication, but rather as a hindrance to communication. His views were at the polar end of mine regarding the potential the Intranet had to offer. The meeting ended with the president offering me a piece of paper, unpleasantly covered with red ink. This paper contained a number of questions regarding my presentation and the company Intranet. I was to provide the answers to these questions as a way of defending the Intranet (and myself).

Red Ink

Due to the limited exposure that I had in meeting with the president, I could not tell whether or not the act of his taking notes and sharing those notes with the *presenter was unusual. In truth, it seemed a natural act for him. Looking back, however, I suspect that he may have treated me differently due to the fact that I was introducing a new project that was not being funded by external sources. In short, I was defending how I spent my time. After reviewing the original questions that were written in red ink that he supplied to me, I get the feeling that 1) this is a man that is worried about the change that an Intranet will bring to his company; 2) he is worried about the security conflicts that could arise from implementing an Intranet; and 3) finally, he is worried the investment costs that would be associated with an Intranet. I feel that it would be unfair to address his knowledge level regarding technology due to the fact that the he doesn't need to be technologically savvy; this is why I have a job. This is not to say that he is computer illiterate, but rather he depends upon us to supply him with the answers to his questions. His questions then reflect the information that was supplied to him by my presentation as well as past experience in dealing with the other programmers. The nature of his questions reflect his background as a retired military officer that seems to be used to rules and guidelines that offer little or no flexibility. Therefore, I believe that his questions were the result of my presentation and lead me to conclude that I did not effectively introduce him to the Intranet and the potential that it had to offer as an application that could be molded to meet the companies growing needs.*

I've summarized the questions that the president gave me into three main categories: business practice, security, and communication. Following is the summarized question and the response as the defense of the Intranet:

Q1. What do we do now? (What is our current method for doing business?)
This was one of the first questions posed by the president and seeks to discover the purpose of the Intranet. The question addresses issues such as document management and electronic communication. It is also possible that this question also represents his feelings that the status quo of the organization is fine. Basically, this question seeks an answer to "Why should we have an Intranet?" Again, this question, to me, represents both his fear of the impact the Intranet would bring to the company and his possible misunderstanding of the technology involved with the Intranet (see Appendix A for my original response to this question).

Q2. Who is the system administrator and what are the security measurements?
The second question posed by the president intends to address the issue of security surrounding the Intranet. This question seems to represent the president's background that, I feel, is often exposed in his role as company president. As a retired military officer, it seems natural that the president may have felt the need to guard certain information even from his employees. This is understandable since we, as employees, do not need to be privy to such information. For example, I do not need to know the salaries of my colleagues. Additionally, this question may also represent a failure to comprehend Internet technologies. I feel that he was mingling the Intranet with his definition of the

Internet and was not able to understand the security precautions that would be taken for the XYX Company Intranet. I feel that I was never able to clearly define an Intranet to the president (see Appendix B for the original response to this question).

Q3. How does an Intranet improve efficiency and communication?
The efficiency of an Intranet was clearly defined to the president during our meeting. Simply stated, the Intranet would allow users to save time and resources by moving standard administrative functions to an electronic format. I feel the final question reflects the president's fear of change that the Intranet would bring to the organization. Specifically, by changing the way we communicate to electronic rather than interpersonally he feared that we would lose the human interaction that was associated with the tasks that the Intranet intended to replace (see Appendix C for the original response to this question).

We intended to meet again after I answered all the questions presented to me. I submitted my response the following week to my manager, who helped me in developing appropriate answers. But over time and as the workload increased, the Intranet and the answers to the questions concerning it began to move further down the priority list. I'm not certain who has possession of the answers that were submitted, I've only retained what was my original submission in electronic format.

Differing views found within an organization have an effect on the success of the Intranet. The Intranet itself, however, may also cause "changes in organizational patterns that encourage us to alter our perspective on how we manage organizations, how we view and value our employees, and how we approach problems" (Telleen, 1997, p.1). Each group within the organization may hold different opinions and expectations of the same Intranet. Tellen also presents two conflicting perspectives on how a group may view the Intranet. These are best described as structured vs. self-adapting. Is the Intranet viewed as dependent upon a set of rules and guidelines? Or is the Intranet viewed as adapting to the ongoing cultural changes within the organization? The success of the Intranet, while measurable in dollars and Return on Investment (ROI), is also dependent upon these views.

Growth

My view of the company Intranet tended to lean toward the latter: self-adapting. I thought of the Intranet as capable of growing as the company grew, adjusting to meet new requirements. However, I believe that the president may have viewed the Intranet as structured and thus incapable of change. If this is true, then his rejection of the Intranet and his failure to identify with the potential for growth provided a major obstacle that I may not have seen during my presentation and may not have been able to overcome during my defense. In order to be successful a web site needs to be able to grow and adjust to the changing demands of its users. If the president was unable to see the Intranet as capable of growing he was unable to see the Intranet as succeeding.

Conclusions

The development process and the ultimate failure of the Intranet influenced me in several ways. First, developing the Intranet provided me a great growing experience as a developer. The Intranet was my own project: I was the main developer and I made final decisions regarding the sites layout and functionality. Additionally, I feel that my decision to take the initiative and develop the Intranet had a definite influence on my manager on my behalf. Finally, the development of the Intranet had a positive impact on the relationships I had with my colleagues. I feel that not only did it unite us in the last stages of development, but that also the failure of it also impacted us together because we all had a vision of the potential that the Intranet had to offer us as a company.

Reviewing the experience of developing the Intranet using auto-ethnography and Kenneth Burke's (1969) concept of identification gave me insight to both the Intranet as a piece of work (the code behind it) and also as a unifying object for the department. Paging through the site, I've noted how there were instances of very well written code as well as instances of questionable thinking. I've also reviewed the meeting notes and e-mails regarding the Intranet and can point to that as a reason that we programmers grew together. Additionally, by using auto-ethnography I can understand why the Intranet failed to answer my main research question. I think the main reason is that I let the Intranet fail: I failed to pursue the matter further even though I felt I only had one chance at gaining acceptance. Had I continued to press the issue by not only submitting the responses, but by requesting additional meetings, and gaining the support of colleagues outside of my department, who I noticed were not represented through out the development process, the company may have an Intranet implemented at this time. Ultimately, it is possible that had I continued to pursue the Intranet throughout my time at this company it might have succeeded.

My secondary research question asks: To what extent does identification explain the process of decision-making and ultimate failure of the Intranet? My analysis has shown that the president of the company, who is the main decision maker, did not identify with the Intranet and did not see its usefulness. Cheney (1983b) proposes that the most important aspect of identification for students of communication is that identifying allows people to persuade and to be persuaded (p.342). Thus, through this analysis, it has been shown that the failure of the Intranet was due to my lack of ability at that time to persuade the president of its necessity. If I had continued working on this project and allowing other people to be more involved in its development, including the president, we might have been able to socially co-construct identification and consequently, co-construct success of the Intranet.

The role of the president as a retired military officer and as the head of our organization contributes to further the sense of mystery that surrounds him and his position. While the president has the mystery of his position and military background, I have the mystery of being a programmer and the ability to understand what involves creating an Intranet. The element of mystery that exists between us, according to Burke, will never be completely removed. Since our jobs and our technological backgrounds are so far apart the greater the mystery that exists between us.

The identification that existed, rather that did not exist, between us was extended by the mystery that was created between us by our positions. Identification also failed to occur due to the lack of both common understanding and common unity. The mystery that existed between us contributed to both by first being the cause of the misunderstanding. For example, I failed to decrease the mystery surrounding the Intranet (and myself as a programmer), which did not aid the president to understand the Intranet and its technology. Additionally, the lack of unity resulted in disparate visions for the Intranet's outcome and expectations. I believe that the president did not have the same vision that I had for the Intranet and therefore did not realize the outcomes that the Intranet was capable of which resulted in his possibly having goals for the Intranet that I did not. Finally, it is possible that the Intranet failed due to the differing goals: if his goals for the Intranet were prioritized the same as my own, perhaps the company Intranet would have become a company wide application rather than a learning project.

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Appendix A

Q1. What do we do now? (What is our current method for doing business?)

The current method for sharing files and information involves providing users access to individual folders on an accessible server, named SAMII. This allows users access to files for common projects, shared templates, and application files. In order to locate a document, users must dig through folder upon folder before finding the needed file. By utilizing an Intranet as a document repository we are able to provide a primary location for common files. According to "Document management and your intranet: A perfect match" (Goodfellow, 1999), an intranet provides a perfect solution for electronic document management system (EDMS). Common files need only be uploaded to one directory on the server and be automatically indexed within the document repository. The process of moving from a paper environment to an electronic one allows for additional functionality: (a) by aiding in facilitating two-way communication and (b) by allowing distribution of many categories of information (Haywood, 1999). While facilitating two-way communication includes e-mail, a system widely accepted and utilized, group communication can be expanded by using discussion forums. The implementation of a discussion board allows for a wider range of topics and encourages group effort on projects. The distribution of information via an Intranet allows for users access to recent information, common forms, and vital information. For example, "the PSC division of Honeywell is the internal repository that handles all of the IAC division's documentation such as forms, engineering drawings, sales materials, and technical manuals" (Davis, 1999). Additionally, the cost of an electronic environment allows for greater search capabilities and a reduction of paper costs, as in the case of California's Tulare County Health and Human Services Agency (Hanzlik, 1999).

Common company business templates (e.g., letter-heads, Power Point templates, and facsimiles) are not currently available on our public server. In order to access these templates, you must request them from our administrative staff. The current templates found on our public server are out of date, or are not in a common file format. By utilizing the Intranet as a document repository, we can allow the administrative staff to upload templates as they change, and allow users to download them directly to their computer as needed.

(Martinez, 1999)

Appendix B

Q2. Who is the system administrator and what are the security measurements?

The system administrator should be in charge of a group of selected employees to aid in the development of the Intranet. This team should be composed of members from each department to provide representation of input for their team. The system administrator should possess the qualities capable of managing a team and bringing together differing ideas toward a common goal:

1. Take Charge- the system administrator needs to emphasize the team's responsibility for the development of the intranet by becoming a team leader.
2. Visualize- the system administrator should be able to visualize the intranets goal, the structure and be able to adapt as technologies and priorities change.
3. First things first- Prioritize. People before technology. Remember that the goal of the intranet is to serve as a tool in daily tasks, not hinder them.
4. Think win-win- the intranet encourages cooperation. The intranet must be accepted as part of the organizations culture. The system administrator's vision must be broad enough to embrace and incorporate new ideas.
5. Listen and learn- successful implementation of the intranet depends on the end-user. The system administrator needs to listen and learn from them.
6. Synergize-combine the best assets of people, content, and technology to create a well-rounded team.
7. Practice constant renewal- evaluate, monitor, and analyze the Intranet on a regular basis while remaining self-critical and focus.

(Fichter, 1999)

Security measurements should be taken against protecting sensitive documents from falling into the wrong hands, so to speak. Unless security is an objective of the entire intranet community, the organization will have an unsecured network (Schwarzwalder, 1999). A defined set of rules and regulations about what material should be posted and who should post documents will aid in defining the security of the Intranet. Table 1 provides a demonstration of implemented security measurements.

Security Level	**Audience**	**Security Rationale**	**Security Concerns**
Medium	All Employees	Public information	Basic access restriction
High	Full Employees	Prevention of leakage of internal information	Limiting of access to appropriate employee classes
Very High	Selected personnel	Protection of confidential data	Limiting access to specific workgroup members, monitoring and auditing usage
Not included on intranet	Need-to-Know basis	Too sensitive to include on intranet	Extremely sensitive materials; should not even be accessible to system administrators.

Table 1: Implementing Security Measurements

(Schwarzwalder, 1999)

In short, documents deemed sensitive should not be posted on the Intranet, not even stored on a network server. In the case of departing personnel, we need to question how we guard against it now? For example, if a member of upper management were to suddenly leave, what are our measurements against restricting them from taking trade secrets with them? In the end, it is a matter of trust between the company and the departing employee.

(Martinez, 1999)

Appendix C

Q3. How does an Intranet improve efficiency and communication?

The intranet's goal is to aid communication within an organization. This can be accomplished through the distribution of information and the collaboration of groups. The development and implementation of an Intranet into the work area is not meant to replace interpersonal or organizational communication, but rather to supplement it through the sharing of data, information, knowledge and ideas (Morgan, 1998).

The daily tasks encountered during the workday center around the computer. It has become a vital tool to accomplish everyday goals. By integrating our resources and using new technologies, we are able to provide a unique service to our employees to help them accomplish their work goals. For example, MCI has provided an efficient means to serve their employees. " The company's online offering, known as 'The Source', provides employees with more than 1,400 pages of interactive services. At the click of a mouse, it's possible to update, share and exchange information in ways that would have seemed impossible only a few years ago "(Greengard, 1998). The MCI Intranet differs from general Intranets in that it builds upon the linear communication to have groups form around information. This allows for teams to be built based upon needed skills rather than departments.

In short, the implementation of an Intranet as a group effort allows users to have a tangible object of which they can take pride in as the "fruit of their labors." By developing the Intranet around members of different company teams, we are able to create an online community. It will be integrated into interpersonal communication as more and more people take possession of the Intranet as theirs. It is best to remember that the computer is a tool used in our everyday tasks, the Intranet is simply an extension of this tool (Morgan, 1998).

(Martinez, 1999)